

CHAPTER 48**APPENDICES****Appendix A****DC Department Of Transportation (DDOT) Project Checklist**

DDOT Project No.	Federal Aid Project No.	Project Location
Beginning Limit		Ending Limit
Ward No.	Program Manager	Federal Aid Project: []
		Non- Federal Aid Project: []
Proposed improvements/scope of work		

Step 1: Project Development is managed by the Office of Planning and becomes part of the 5-year Capital Improvement Program. The initial scope of work, cost estimate and community issues are identified and coordinated with the Ward Program Manager.

Step 2: The DDOT Ward Program Manager reviews the initial scope of work in coordination with Office of Planning, Traffic Services Administration, ROW Administration and Urban Forestry Administration. The Program Manager visits the project site to determine all issues for scope of work. Upgrade the design and construction cost estimates.

Step 3: Ward program Manager manages and reviews the in-house designs and the designs performed by consultants.

Instructions:

- 1.) This checklist is to be used in conjunction with the Policy and Procedure Manual.
- 2.) The checklist is intended to aid DDOT project managers, consultant project managers and private developers engaged in designing projects for construction in the District.
- 3.) X Denotes that the project manager requires action at these stages of the project.
- 4.) Check (✓) the Clearance box when an item is completed and approval of clearance is obtained from the authorizing Department, agency or Administration.
- 5.) All Federal Aid Projects require coordination and approvals from the

District division of Federal Highway
Administration (FHWA).

D.C. Department of Transportation – Design and Engineering Manual

Section - 1 General	Step 1 Project Develop- ment 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	✓
Estimated Construction Cost	\$	\$	\$	Project Manager	
Project Budget & Program Actions for Obligation	X	X	X	Chief Financial Officer (DDOT Budget Office)	
Public Involvement	X	X	X	Advisory Neighborhood Commissions (ANC'S)	
Maintenance Input	X	X	X	ROW Administration, Traffic Services Administration, Urban Forest Administration	
Utility Input	X	X	X	ROW Administration & Utility Companies	
Water/Sewer (WASA) Input	X	X	X	WASA	
Trees & Landscaping	X	X	X	Urban Forest Administration	
L'Enfant Landmark Location	X	X	X	National Capital Planning Commission	
Capital Hill Location	X	X	X	Architect of the Capital	
Historic District/Historic Bridge or on Historic Property	X	X	@ 65 %	State Historic Preservation Office (SHPO), Commission of Fine Arts	
Business Improvement District & Streetscape Enhancement				DDOT Streetscape Committee, National Capital Planning Commission	
Traffic Issues	X	X	X	Traffic Services Administration, Office of Mass Transit	
Bike/Pedestrian Improvements	X	X	X	TPPA	
Rehabilitation or Reconstruction	X	X	X	Infrastructure Project Management Administration	
Horizontal Control (Maryland			X	DC Surveyor's office	

D.C. Department of Transportation – Design and Engineering Manual

Coordinate) and Benchmarks					
Vertical Control (DC Datum) and Benchmarks			X	DC Surveyor's Office	
Federal Lands Affected	X	X	X	Office of Planning, General Services Administration, Federal Highway Administration, Effected Agency	
Design Data (Form 02002)		X		Project Manager	
Design Exception (02003)			@ 65%	Infrastructure Project Management Administration	

Section - 2 Environmental	Step 1 Project Develop- ment 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	✓
Route Location Approval Major Certification (EIS) Minor Compliance (EA) Categorical Exclusion	X	X		Office of Planning	
Section 4(f)	X	X	@ 100%	National Park Service (NPS)	
Section 6(f)		X	@ 100%	DC Park & Recreation Dept	
ROW Acquisition	X			DC Office of Property Management.	
Archaeology (Effects Determination)	X	X		DC Health	
Paleontology (Effects Determination)	X	X		DC Health	
Floodplains	X	X		DC Health, Corp of Engineers	
404 Permit -	X	X	@ 65%	US Coast Guard	
Wetlands	X	X		DC Health, Corp of Engineers	
Wetlands Mitigation		X	X	DC Health, Corp of Engineers	
USF & W – Dept of Health					
Threatened and Endangered Species	X	X	X	DC Health	
Hazardous waste and materials Contaminated soils	X	X	X	DC Health, EPA	
Noise Control - Variance	X	X	@ 30%	DC Health	

D.C. Department of Transportation – Design and Engineering Manual

Air Quality	X	X	@ 65%	DC Health	
401 Certification	X	X	@ 65%		
402 Permit	X	X			
NPDES Permit	X	X			
Water Quality	X	X	@ 65%	DC Health, WASA	
Erosion Control		X	@ 65%	DC Health	
National Park Lands Permit (Work on NPS Land for Surveying and Construction)		X	Prior to 30 % for Surveying @ 100% for construction	National Park Service	

Section - 3 Traffic	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	✓
Traffic Design Data (For Year of Construction)		X		Traffic Services Administration	
Traffic Accident Analysis	X	X		Traffic Services Administration	
Turning movements		X		Traffic Services Administration	

Signal warrants	X	X		Traffic Services Administration	
Intersection layout/Design	X	X	X	Office of Planning, Traffic Services Administration	
Interchange layout/Design	X	X	X	Office of Planning, Traffic Services Administration	
Construction/Modification of Circles and other Landmarks	X	X	@ 65%	National Capital Planning Commission (NCPC)	
Traffic Calming	X	X	X	Traffic Services Administration	
Traffic signal	X	X	X	Traffic Services Administration	
Streetlight	X	X	X	Traffic Services Administration, Infrastructure Project Management Administration	
Permanent signing and pavement marking		X	X	Traffic Services Administration	
Construction traffic control plans (Signing, signals and pavement marking)		X	X	Traffic Services Administration	

Section -4 Structures	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	
Structure – Tunnel	X	X	X	Infrastructure Project Management Administration	
Structure – bridge	X	X	X	Infrastructure Project Management Administration	
Structure – culvert	X	X	X	Infrastructure Project Management Administration, WASA	

D.C. Department of Transportation – Design and Engineering Manual

Architectural/ Aesthetic Bridge Rail	X	X	X	Infrastructure Project Management Administration	
Pedestrian overpass/underpass	X	X	X	Infrastructure Project Management Administration	
Architectural/Aesthetic Treatment of Structure		X	X	Infrastructure Project Management Administration, State Historic Preservation Office (SHPO) for Historic Structures	
Foundation investigation and recommendation		X		Infrastructure Project Management Administration (QA/QC Materials Div)	
Structure condition report		X		Project Manager	
Retaining Walls- Aesthetic Treatment		X	X	Project Manager	
Noise Barrier Walls	X	X	X	D.C. Health	
Crashworthy bridge rail		X	X	Project Manager	
Vertical & Horizontal clearance		X	X	Infrastructure Project Management Administration	
Proposed Section		X	X	Project Manager	
<ul style="list-style-type: none"> Section – 5 Pavement 	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	✓
ROW Distribution for city Streets (Width of Roadway, Sidewalks, Trees-pace & ROW, etc.)		X	X	District Surveyor's Office, ROW Administration (Data abase)	
Distress Pavement Justification Report	X	X		Office of Planning (Pavement Management Division)	

Geotechnical Studies and Pavement Analysis Investigation, Selection of Materials		X		Infrastructure Project Management Administration (QA/QC Materials Div)	
Curb Cuts, Cross-Walks layout & ADA Requirements		X	X	TPPA	
Sidewalks, Curbs & Gutters and Special Treatments		X	X	Infrastructure Project Management Administration	
Selection of Pavement		X	X	Infrastructure Project Management Administration	
Alternative pavement design (life cycle cost analysis)		X	X	Project Manager	
Existing Pavement Section	X	X	X	Project Manager	
Alley Pavement	X	X	X	Infrastructure Project Management Administration, Traffic Services Administration	
Pavement Special Materials and treatments	X	X	X	Infrastructure Project Management Administration	

Section - 6 Trees Planting And Landscaping	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%, 65%, 100%	Clearance From	
				Department/ Administration	
Tree Species and Planting Requirements		X	X	Urban Forest Administration	
Landscaping Standards		X	X	Urban Forest Administration	
Seeding/Sod		X	X	Urban Forest Administration	

D.C. Department of Transportation – Design and Engineering Manual

Streetscape Requirements	X	X	X	DDOT Streetscape Committee	
Irrigation Systems		X	X	Urban Forest Administration, WASA	

Section – 7 ROW and Dry Utilities	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	✓
ROW involvement	X	X	X	District Surveyor's Office, ROW Administration	
Access control	X	X	X	ROW Administration	
Relocation	X	X	X	ROW Administration	
Permit Requirement		X	X	ROW Administration	
Existing Easement		X	X	ROW Administration	
New Easement	X	X	X	ROW Administration	
Clearance			X	ROW Administration	
Attachment to Structure		X	X	ROW Administration, Infrastructure Project Management Administration	
Utility Cuts			X	ROW Administration	
Utility Cut Repairs			X	ROW administration, Infrastructure Project Management Administration	

Section - 8 Water, Sewer and Storm Sewer	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100%	Clearance From	
				Department/ Administration	✓

D.C. Department of Transportation – Design and Engineering Manual

New Storm Sewer Extension	X	X	X	WASA	
Special Structure/ Water Quality Improvement	X	X	X	Dc Health, WASA	
Upgrade Storm Sewer Main/ Combined Sewer	X	X	X	WASA	
Upgrade Water main	X	X	X	WASA	
Standard Catch Basin & Standard 15 inch Connect Pipe		X	X	Project Manager	
Upgrade Fire Hydrant		X	X	WASA	

Section - 9 Agreements, Justifications and Approvals	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100 %	Clearance From	
				Department/ Administration	
Detour Design		X	X	Traffic Services Administration	
Railroad/ WMATA Coordination RR/WMATA Company RR Flagging and Insurance requirements		X	X	Railroad Company, WMATA	

D.C. Department of Transportation – Design and Engineering Manual

Vertical & Horizontal Clearances at RR & WMATA Crossings		X	X	Railroad Company, WMATA	
Agreement Review		X	X	DDOT Legal Review	
Airport/heliport clearances	X	X	X	Police Dept., Capital Police, Fire Dept.	
Safety Review (including clear zone decisions)			X	Traffic Services Administration	
Guardrail/Barrier Design (Special/ unique Designs)		X	X	Infrastructure Project Management Administration	
Erosion Control Scour Storm water Quality Management		X	@ 65 %	D.C. Health	
Special Bidding Procedures			X	Infrastructure Project Management Administration	
Consolidation of Projects		X		Infrastructure Project Management Administration	
Special Material Specifications			X	Infrastructure Project Management Administration	
Consultant Selection and contracting process		X		Infrastructure Project Management Administration	
Agreements Intergovernmental, Public, & Private) 1. State Agreements 2. Inter- Agency Agreements Memorandum Of Understanding (MOU) 3. Agreements with Private Parties Memorandum of Agreement (MOA)			X	DDOT Director	
Disadvantaged Business Enterprise Goals			X	District's Contracting Officer	

Section - 10 Construction Document	Step 1 Project Development 5-year plan	Step 2 Pre-design Design Scoping	Step 3 Design Phase Design Reviews 30%,65%,100 %	Clearance From	
				Department/ Administration	✓
Surveying Requirement		X	X	Project Manager	
Materials or Source of materials Furnished by others		X	X	Infrastructure Project Management Administration	
Work by Utility Companies/WASA with DDOT Project		X	X	Project Manager	
Work of others for Inclusion in DDOT Project, such as utilities, WASA		X	X	Infrastructure Project Management Administration	
Work by DC forces			X	Infrastructure Project Management Administration	
Utilities Certification Prior to P.S.& E			@ 100 %	ROW Administration	
Value Engineering			X	Project Manager	
PS & E Approval			@ 100 %	Infrastructure Project Management Administration	
P.S & E Package to FHWA			@ 100 %	Contract Administration Office	
Advertisement			@ 100 %	Contract Administration Office	
PS & E revisions			@ 100 %	Project Manager	
Re-advertisement			@ 100 %	Infrastructure Project Management Administration	

D.C. Department of Transportation – Design and Engineering Manual

Bid Analysis			@ 100 %	Project Manager	
Recommendation of Approval			@ 100 %	Project Manager	

APPENDIX B

Definition of Acronyms

ACRONYM:	DEFINITION:
3R	Resurfacing, Restoration, Rehabilitation
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
ANC	Advisory Neighborhood Commission
ATSSA	American Traffic Safety Services Association
BLM	Bureau of Land Management
COG	Council of Governments
CBC	Concrete Box Culvert
CFR	Code of Federal Regulations
DBE	Disadvantaged Business Enterprise
DDOT	Washington DC Department of Transportation
DHV	Design Hour Volume
DOR	Design Office Review
EEO	Equal Employment Opportunity
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESAL	Equivalent Single Axle Load
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FIPI	Finding-in-the-Public-Interest
FONSI	Finding of No Significant Impact
HAZMAT	Hazardous Materials
HCM	Highway Capacity Manual
HES	Hazard Elimination System
HOV	High-Occupancy Vehicle
HTF	Highway Trust Fund (Federal)
HUTF	Highway Users Tax Fund (State)
IAI	Impact Attenuator Inventory
IDIQ	Indefinite Delivery/Indefinite Quantity
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
IVHS	Intelligent Vehicle Highway System
LCCA	Life Cycle Cost Analysis
LOS	Level of Service
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MUTCD	Manual on Uniform Traffic Control Devices

NCHRP	National Cooperative Highway Research Program
NCSHS	National Conference on Street and Highway Safety
NCUTCD	National Committee on Uniform Traffic Control Devices
NEPA	National Environmental Policy Act NHS National Highway System
NPC	National Planning Commission
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
ProMIS	Project Management Information System
PS&E	Plans, Specifications and Estimate
QA/QC	Quality Assurance/Quality Control
ROD	Record of Decision
ROW	Right of Way
SHPO	State Historic Preservation Office
SNAP	Strategic Neighborhood Action Plan
TARAS	Traffic Accident Report and Analysis System
STP	Strategic Transportation Plan
TCP	Traffic Control Plan
TEA-21	Transportation and Efficiency Act for the 21st Century
TIP	Transportation Improvement Program
TMC	Turning Movement Count (10 Hour)
UDBE	Underutilized Disadvantaged Business Enterprises
UMTA	Urban Mass Transportation Administration
USC	U. S. Code
USDA	U. S. Department of Agriculture
USDOT	U. S. Department of Transportation
USFWS	U. S. Fish and Wildlife Service
VMT	Vehicle Miles Traveled

APPENDIX C

Consultant Checklist

Item	Preliminary Plans	Interim Plans	Final Plans
Title Sheet			
Identification Block			
Street Name			
Project Number			
Stationing Limits			
Signature Block			
Designer Block			
Bar Scales			
Vicinity Map			
Design Information			
Plan Sheets			
Centerlines and Stations			
Limits of Project			
Edges of Pavement			
Curb and Gutter, Sidewalk			
ROW and Property Lines			
Ownership			
Structures			
North Arrow			
Street Names			
Railroads			
Federal Government Lands			
Political Boundaries			
Historic Designation			
Boundaries			
Sheet Identification			
Legend			
Scale			
Curve Data			
Easement Notes			
Top and Drainage within ROW or affecting ROW			
Excavation and Embankment Lines			
All utilities affecting project limits			
Profile Sheets			
Limits of Work			
Structures and Clearances			
Grades			
HLSD or SSD			
Datum			

Grades
PVC, PVI, PVT
All curve data
Pipes and Drainage
Utilities affecting project
Summary and Quantity Sheets
Pay Items
Item Numbers
Quantities
Alternates

APPENDIX D

Standard Plan Abbreviations

Item	Abbreviation
Addition	ADD
Avenue	AVE
Back of Curb	BOC
Back of Sidewalk	BOW
Bearing	BRG
Benchmark	BM
Bottom of Cut	BC
Bottom of Fill	BF
Bottom of Wall	BW
Building	BLDG
Centerline	CL
Cast Iron Pipe	CIP
Cubic Foot	CF
Cubic Yard	CY
Drawing	DWG
East	E
Eastbound	EB
Estimate	EST
Face of Curb	FC
Feet	FT
Flow line	FL
Gallons	GAL
Highway	HWY
Hours	HR
Inch	IN
Invert	INV
Junction	JCT
Left	LT
Linear Foot	LF
Lump Sum	LS
Manhole	MH
Monument	MON
National	NTL
North	N
Northbound	NB
Northeast	NE
Northeast	NE
Northwest	NW
Number	No.
Offset	OFF
Point of Intersection	PI

Point of Vertical Intersection	PVI
Point of Vertical Curve	PVC
Point of Vertical Tangent	PVT
Pounds	LBS
Property Line	PL
Radius	R
Railroad	RR
Revision	REV
ROW	R/W
South	S
Southbound	SB
Southeast	SE
Southwest	SW
Tangent	T
Temporary	TEMP
Top of Curb	TOC
Typical	TYP
West	W
Westbound	WB

APPENDIX E:

Definitions

Access for Land Uses - This access is the physical location where a legal Traversable Path may be constructed for vehicular movement between a parcel of land and the public ROW.

Access Management - The concept of a public agency controlling the location of access points in order to achieve the dual purposes of providing access to individual land uses and limiting access on higher order streets in order to facilitate the smooth flow of traffic with a limited amount of impedance.

Addendum - Change in Contract Documents issued in writing prior to opening of bids.

Advertisement - A public announcement, as required by law, inviting bids for work to be performed, materials to be furnished, or proposals to be developed. Such advertisements will indicate with reasonable accuracy the quantity and location of the work to be done or the character and quantity of the material to be furnished and the time and place of the opening of proposals.

Alley - Public passageway for vehicles, pedestrians, drainage purposes, or any combination thereof, which connects with a street and which usually affords a means of access to the rear of properties abutting streets or highways.

Applicant - The person or designated agent providing pertinent information for preparation of permit, US, etc. This is often the Developer.

Approach Taper - An approach taper is from the point where all approaching traffic must shift laterally, to the point of the beginning bay taper.

Arterials - An Arterial is that part of the roadway system serving as the principal network for through traffic flow. The routes connect areas of principal traffic generation and important rural highways entering the urban areas. Arterials may contain two, four, or six through lanes, as designated on the Entity Master Sheet Plan.

Attached Sidewalk - Sidewalk that is adjacent to the curb.

Award - The decision of the Contracting Officer to accept the proposal of the lowest responsible bidder for the work, subject to the execution and approval of a satisfactory contract thereof and bond to secure the performance thereof, and to such other conditions as may be specified or required by law.

Base Course - The layer or layers of specified or selected material of designated thickness placed on a sub-base or subgrade and used as a foundation to support a surface course.

Bay Taper - Bay taper is from the edge of the adjacent through traffic lane to the beginning of the full width of the turn lane storage.

Bicycle Facilities - A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking facilities, mapping of all bikeways, and shared roadways not specifically designated for bicycle use.

Bicycle Lane (Bike Lane) - The portion of the shoulder or roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.

Bicycle Path (Bike Path) - A bikeway physically separated from motorized vehicular traffic by open space or barriers and either within the City ROW or within an easement.

Bicycle Route (Bike Route) - A segment of a bicycle system, designated by the District. Bicycle routes have appropriate directional or informational markers" with or without specific bicycle route number.

Bid Bond - A guarantee by a surety company that the Contractor who submitted a bid on a project will not withdraw his bid for a specified period (usually 90 days) and that the surety company will in that time if notified to do so furnish a payment and performance bond that they will fulfill the terms of the contract.

Bidder - Any individual, firm, partnership, corporation or joint venture submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

Bikeway - Any road or path that is designed for bicycle or pedestrian traffic, but not necessarily for their exclusive use.

Bridge - A single or multiple span, structure, including supports, erected over a depression or an obstacle such as water, highway or railway, and having a passageway for carrying traffic or other moving loads and having an opening measured along the center of the passageway of more than 20 ft.

Bridge Length - The greater dimension of a structure as measured along the center of the roadway between backs of abutment backwalls or between ends of bridge deck.

Bridge Roadway Width - The clear width of the superstructure measured at right angles to the center of the roadway between the bottom of curbs or, if curbs are not used, between the inner faces of parapet or railing.

Calendar Day - Each day shown on the calendar.

Certified Minority Business Enterprise - A business enterprise that has been issued a certification of registration by the District of Columbia, Minority Business Opportunity Commission qualifying it to perform certain categories of work.

Change Order - A written order issued by the Contracting Officer to the Contractor covering changes in the contract and establishing the basis of compensation and time adjustments for work affected by the changes.

Chicanes - Offset curb extensions that change the path of vehicular travel from straight to curvilinear.

Code - The latest official adopted ordinances, policies, codes, and/or regulations

Collector - A street that provides both land access service and traffic circulation within residential neighborhoods and commercial and industrial areas. The primary purpose is to collect traffic from local streets and properties and channel it into the arterial system.

Commercial - A business area where ordinarily there are many pedestrians during day or night hours. This definition applies to densely developed business areas outside, as well as within, the central section of the District.

Connective Access Between Public Streets - This access is defined as the physical location where one public street in one development connects to a public street in another development.

Construction Completion Time - The number of days, stated either in calendar days or as a completion date, allowed for completion of the contract, including authorized time extensions.

Construction Coordination Meeting - A meeting between the Department, utility companies, the Developer, and other required attendees pre-design and during design prior to the commencement of construction of the public improvements.

Construction Costs - Construction costs shall generally include all Right -of -Way, earthwork, paving, drainage, structures, signing and striping, traffic control, lighting, landscaping, curb and gutter, sidewalk, and utility relocation work necessary to complete the required improvements.

Construction Plans - Detailed and working plans including plan and profile, details, notes and any other information necessary for complete construction of the required improvements

Consultant Engineer - A professional engineer licensed in the District, working on behalf of the Developer.

Contract Documents - Addenda, Contract Form, General Provisions, Labor Provision, Performance and Payment Bonds, Specifications, Special Provisions,

Contract Drawings, approved written Change Orders, and Agreements required to acceptably complete the Contract including authorized extensions thereof.

Contract Drawings - All drawings, often referenced as Drawings or Plans (i.e., project drawings, Office Manual Drawings and other standard drawings) including reproductions of revisions thereof but exclusive of shop and working drawings and reference drawings, which show the location, character and dimensions of the prescribed work, including layouts, profiles, cross sections and other details.

Contracting Officer - The Director of the Department or his/her representative authorized to enter into a contract on behalf of the District of Columbia.

Contract Price - The price stated in the Schedule of Prices.

Contractor - The individual, firm, partnership, corporation or joint venture under contract with the District for execution of prescribed work, acting directly or through a duly authorized representative.

Corner Clearance - At an intersecting street, the distance along the curb line from the projection of the intersecting street flow-line to the nearest edge of the curb opening.

Corner Sight Distance - The distance necessary for the driver of a motor vehicle stopped at a stop sign on a Minor Street or driveway to see approaching vehicles, pedestrians, and bicyclists along the intersecting major street and have sufficient space to make any allowed move to cross the Major Street or merge- with traffic on the Major Street without causing vehicles, pedestrians, or bicyclists traveling at or near the design speed on the major street to slow down. The controlling distance for design is the longest distance, generally the distance necessary to merge with traffic.

Cross Slope - Slope of the pavement surface, excluding gutter perpendicular to the street centerline.

Culvert - A structure other than a bridge that provides an opening under a roadway for drainage or other uses.

Current - As used in reference to specifications or methods of test, shall refer to those in effect at the time of advertisement for bids.

Days - Intended as Calendar Days and not Working Days unless stipulated as Working Days.

Department - The Department of Transportation, District of Columbia.

Departure Taper - Departure taper of a left-turn bay is from the point where through traffic beyond the intersection begins a lateral shift to the left to the point where the through lane is adjacent and parallel to the centerline.

Design Speed - The speed determined for design that takes into account the physical features of a street influencing vehicle operation; the maximum safe speed maintainable on a specified section of street when conditions permit design features to govern. Design speed is 5 to 10 Mph higher than the posted speed limit to provide a factor of safety and allow for other conditions or uses of the street that may affect vehicle operation.

Designer - The person or persons responsible for the creation and submission of contract documents or construction plans for the purpose of one-time construction of a facility. This person shall be a licensed Professional Engineer registered in the District.

Detached Sidewalk - Sidewalk that is offset from the curb.

Developer - The private party or parties desiring to construct a Public or Private Improvement within the District or Easements, securing all required approvals and permits from the District, and assuming full and complete responsibility for the Project.

Development - Construction of improvements on land that is essentially vacant.

Development Agreement - This Agreement is the contract between the District and the Developer, which defines Public Improvement requirements, costs, and all other related Public Improvement issues.

Development Construction Permit –

Director - The executive officer of the Department of Transportation.

Distance Between Double Driveways - The distance measured along the curb line between the inside edges of two adjacent curb openings.

Driveway - A private access from a public or private roadway.

Driveway Approach - The portion of the driveway lying in the public ROW or public access easement between the street gutter lip or roadway of a public street and the ROW or public access easement line, for the full width of the access, including both apron and side slopes.

Earth - The word "earth", wherever used as the name of the excavated material or material to be excavated, shall mean all kinds of material other than rock as defined herein.

Easement - The right of the District to use lands owned by a private party for the purposes of maintenance, access, drainage, or other use, as specified on a plat or deed of dedication.

Edge Clearance - The distance measured along the curb line from the nearest edge of the curb opening to a point where the property line extended intersects the curb line.

Elevation - The figures given on the Drawings or in the other Contract Documents after the word "elevation" or abbreviation of it shall mean the distance in feet above the standard datum used by the District.

Embankment - A raised structure of soil, soil aggregates, or rock below the subgrade.

Engineer - The Engineer of Bridge Construction or the Engineer of Street Construction acting directly, or through and within authority of an authorized representative.

Estimated Cost (Cost Estimate) - Unit costs based on those approved by the Department and assigned to materials and related quantities. The Opinion of Cost shall be broken down by Phase, when applicable, for each Project and shall be submitted by the Designer at the time of first Plan review by the Department.

Expressway - A divided major roadway for through traffic with partial control of access and usually with interchanges at major crossroads.

Eyebrow - A bulb or semi-circular extension of a curb on the outside edge of a street or at an "L" turn to provide more street frontage for adjacent lots.

Fees - Monetary charges that compensate the District for services rendered.

Fence - An artificially constructed barrier of wood, masonry, stone, wire, metal, or other manufactured material, or combination of materials, erected to enclose, partition, beautify, mark, or screen areas of real property.

FHWA - Federal Highway Administration of the United States Department of Transportation.

Field Order - A written notice given by the Inspector to the Designer or Contractor detailing a change, request, mandate, or corrective action necessary to conform to these Standards, approved Plans, or other applicable District Codes

Franchise Agreement - An agreement between the District and certain private utility companies, specifying terms and conditions for use of the District's Public ROWs or other public-owned lands.

Freeway - A divided major roadway with full control of access and with no crossings at grade.

Frontage - The distance along the street ROW line of a single property or development within the property lines. Corner property at an intersection would have a separate frontage along each street.

High Volume Driveways - Private access from a public roadway designed to service 250 or more vehicle trips per day.

Highway, Street or Road - The entire right-of-way reserved for use in constructing or maintaining the roadway and its appurtenances.

Holidays - The following days are recognized as legal holidays:

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veterans Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

Any day declared a holiday by the District shall be observed. When a holiday falls on a Sunday, the following Monday will be observed as a Holiday. When a holiday falls on a Saturday, the preceding Friday will be observed.

Improvement Agreement - The Subdivision Improvements Agreement, Public Improvements Agreement or Development Agreement, which are written documents of terms and conditions related to a one-time development of a specific Project within the District's jurisdiction. Such agreements are made between the District and Developer to outline responsibilities and duties of each party

Improvements - This is inclusive of a public or private improvement within District ROW or easement.

Industrial/Warehouse - Any establishment that manufactures or stores an article or product.

Inspector - The Engineer's authorized representative assigned to make any inspection of work performed and materials furnished.

Intersection nose - The radius or distance from the end of the storage bay to the near edge of the cross-route exit lane for the left-turning vehicle. For left-turn bays, the cross-route exit reference is normally the centerline of an unchannelized 2-way street or the far edge of the median in a channelized street.

Intersection Sight Distance - Refer to Corner Sight Distance

"Issued for Construction" Plans - Design plans that conform to these Standards and are signed and stamped by the Designer and signed by the appropriate Department staff and ready for distribution to the Contractor for construction.

Laboratory - The established testing laboratory or other testing laboratories that may be designated by the Engineer for the performance of tests.

Landscaping - Materials including, without limitation: grass, ground cover, shrubs, vines, trees, and non-living materials, commonly used in landscape development, as well as attendant irrigation systems.

Lane Width - The width of a travel lane measured from the centerline of the lane striping to the centerline of the parallel lane stripe, to the face of the curb, or lip of gutter whichever is applicable.

Lift - The maximum specified thickness of material that may be placed at one time.

Lip - Defines the outermost edge of the gutter pan.

Liquidated Damages - The amount to be deducted from monies due the Contractor for failure to complete the work in the specified time.

Local Streets - All facilities that are not in one of the higher systems. Their primary purpose is to provide direct access to abutting lands and connections to the higher classification streets.

Main Member - Any member designed to carry the loads applied to the structure.

Major Streets - These streets include all Major Collector and Arterial streets and are typically designated on the Master Street Plan or Transportation Master Plan.

Manager/Administrator - The highest level of staff authority within the Department.

May - A permissive condition.

Minor Street - These streets include Local or Minor Collector Streets.

Neckdowns - A narrowing of the roadway for traffic calming at intersections or mid-block.

Neighborhood - A residential or commercial area defined by ordinance.

Notice to Proceed - A written notice to the Contractor from the Contracting Officer stating the date on which the Contractor shall begin prosecution of work under contract, or to begin a phase of the work.

Office Manual Drawings - Detail Drawings of the Department of transportation of general application.

Official - A person appointed by the District to administer these Standards.

Ordinance - A law established by the District Council.

Original Cost of Design and Construction - The Original Cost of Design and Construction shall mean the cost of financing, engineering, construction, and any other costs actually and reasonably incurred that are directly attributable to the improvements.

Overall Development Plan -This is the term used to describe the Initial Plan showing Preliminary Improvements.

Parkway - Refer to Tree Lawn.

Pavement Structure - The combination of base courses and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.

Pay Item (Bid Item, Item) - An item of work specifically described and for which a price, either unit or lump sum, is provided.

Pay Item Schedule (Schedule of Prices) - A schedule showing the pay item number, the approximate quantity of each pay item, the price bid by the Contractor to be paid for each item of work performed under the contract, the total cost of each item, and the total amount bid by the Contractor.

Pedestrian Walkway - A public facility for pedestrian traffic not necessarily within the ROW of the vehicular traffic roadway but within public easements (e.g., public tunnels).

Performance and Payment Bond - A guarantee by a surety company that the Contractor will be responsible for the performance and fulfillment of the contract and will pay all bills and accounts for materials and labor used in the work.

Permittee - The holder of a valid Permit from the District issued in accordance with these Standards, or other District related process.

Phasing Plan - This plan defines improvements to be completed in specified parts over a defined sequence.

Plans - The contract drawings that show the location, character, and dimensions of the prescribed work, including layouts, profiles, cross sections and other details.

Plant - All physical resources, facilities, machinery, equipment, staging, forms, tools, work and storage space other than provided by the contract, together with subsidiary essentials and necessary maintenance for proper construction and acceptable completion of the project.

Pre-Construction Meeting - A meeting between the Engineer and assigned agents and the Inspector to review proposed Work necessary to construct the Project, prior

to proceeding with the Work. A meeting may be required for each Project, at the Inspector's discretion.

Private Improvements - Those improvements similar to Public Improvements, but which are installed within private easements and requiring a Development Construction Permit.

Private Street - Contained in private easements but must be designed and constructed to these Standards.

Professional Engineer (P.E.) - Engineer licensed in the District.

Project - The Public or Private Improvement(s) designated in the approved Plans that are to be constructed in conformance with these Standards. The Project is inclusive of all Public or Private Improvement Projects for or within the public space ROW, whether development projects, private utility projects or capital improvement projects.

Project Supervisor or Contractor - The person appointed by the Contractor for management and control of the Work on the Project as performed by the Contractor and Subcontractors.

Proposal - The offer of a bidder on the prescribed form, to perform stated construction work at the prices quoted.

Proposal Form - The prescribed form on which the offer of a bidder is to be submitted.

Proposal Guaranty - The security furnished with a bid to assure that the bidder will enter into the contract if his offer is accepted.

Proposed Roadway Improvements - Those roadway improvements deemed necessary due to the impact of the project development.

Public Improvements - Those public-type facilities to include pavement, curb, and gutter, sidewalk, pedestrian/bike/equestrian paths, storm drain facilities with related appurtenances, culverts, channels, bridges, water distribution, or transmission facilities with related appurtenances, sanitary sewer collection facilities with related appurtenances, water and waste water treatment facilities, pavement markings, signage and striping, traffic signals and related appurtenances, erosion control and ROW grading, or earth excavation processes integral to construction of other public improvements listed herein.

Public Improvements Acceptance, Final - The written notification from the District, after the District Engineer finds the Warranty Period satisfactorily completed, that all Public Improvements are free of defects and the District releases the Developer from future maintenance obligations.

Public Improvements Conveyance and Acceptance - This is the document and process, that initially accepts for ownership, maintenance, and warranty, the Public improvements identified by a developer in the approved Plans and Improvement Agreement for a specific Project.

Public Space – All publicly owned property between the property lines on a street, as such property lines area shown on the records of the District, and includes any roadway, tree space, sidewalk, or parking between such property lines.

Punch-list, Initial or Final - A written list of Work items, compiled by the Inspector, which do not conform to these Standards or other associated District Codes that govern the Project.

Raised Crosswalk - A roadway crossing that elevates the pedestrian crossing above the roadway surface. This improvement is a Traffic Calming device.

Record Drawings (As-Built Drawing) - Original design drawings updated by a Professional Engineer depicting all modifications from the design that occurred during construction.

Redevelopment - Removal or modification of existing improvements and construction of new improvements or substantial remodeling.

Registered Professional Engineer - Registered Professional Engineer in the field of civil, mechanical or electrical engineering, whose registration is acceptable to the District's Board of Registration for Professional Engineers.

Report - A professionally bound document, the contents of which may contain certain necessary analyses, surveys, tests, exhibits, and other pertinent data supporting the subject matter.

Resident Engineer - The authorized representative of the Engineer in charge of one or more construction contracts.

ROW (Right-of-Way) - Also "Public ROW (ROW)." A public street, way, alley, sidewalk, easement, park, square, plaza, tract, or District-owned lands. In addition, any other public property owned and controlled by the District, or dedicated to public use.

Roadbed - Graded portions of highway upon which soils base, pavement or base, surface, shoulder, sidewalk, and median are constructed.

Roadway - The portion of the right-of-way intended for vehicular use.

Rock - "Rock", wherever used as the name of an excavated material shall mean only boulders and pieces of concrete or masonry exceeding one cubic yard in volume, and solid ledge rock which, in the Engineer's opinion requires for its removal, drilling and blasting, wedging, sledging, barring or breaking up with power-operated tools.

No soft or disintegrated rock which can be removed with a hand pick or power operated excavator or shovel, or loose, or previously blasted rock or broken stone in rock fillings or elsewhere, and no rock exterior to the maximum limits of measurement allowed, which may fall into the excavation, will be measured or allowed as rock.

ROW Permit - A document, with or without conditions specified by the District, which allows a Developer to construct any Public or Private Improvements within an improved ROW or Easement.

Roadway - The portion of the highway, arterial, collector, or local street, including shoulders, intended for vehicle and/or bicycle use.

Roundabout - The roundabout is a circular street intersection used as a traffic control device in lieu of a multi-way stop or a traffic signal.

Scoping Meeting - This conference is a required meeting for the Applicant and Applicant's traffic engineer to review all the requirements for a Transportation Impact Study.

Secondary Member - Member not designed to carry primary loads.

Set Aside - Designated projects procured in accordance with 49 CFR Part 23 for which bids from only qualified disadvantaged or women owned business enterprises may be considered for award.

Setback - The lateral distance measured perpendicular to the street and extending from the ROW line, or other specific feature, to the closest point of a structure.

Shall - A mandatory condition.

Shared Roadway - Any roadway upon which a bicycle lane is not designated and that may be legally used by bicyclists regardless of whether such facility is specifically designated as a bikeway.

Sheltered Market - Designated projects procured in accordance with the provisions of D.C. Law 1-95 (Minority Contracting Act of 1976) and on which only bids from minority business enterprises pre-qualified by the District of Columbia Minority Business Opportunity Commission will be accepted.

Shop Drawings - Drawings prepared by the fabricator or supplier showing the layout and details of components fabricated in a shop for inclusion in the permanent facility e.g., structural steel, reinforcing steel, railing.

Should - An advisory condition, recommended, but not required.

Shoulder - The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles for emergency use, and for lateral support of base and surface courses.

Sidewalks - Paved or otherwise improved area for pedestrian use, located within the public street Right-of-Ways that also contain roadway for vehicular traffic.

Site - The area upon or in which the Contractor's operations are carried on and such other areas adjacent thereto as may be designated by the Engineer.

Special Provisions (Designated as S.P.) - Special directions and requirements peculiar to a project not otherwise thoroughly set forth in Standard Contract Provisions and Standard Specifications.

Specifications - Construction specifications and standards adopted by the District.

Specified Completion Date - The date on which the contract work is specified to be completed.

Speed Humps - Speed Humps are paved humps used in the street roadway. The geometrics of the Speed Hump determine how fast it can be navigated.

Standards - "District Standards" inclusive of all secondary/supplemental codes and any subsequent amendments.

Standard Contract Provisions - Standard Instructions to Bidders, General Provisions, Labor Provisions, Bid and Contract Forms as amended, for use with District of Columbia construction projects and issued by the Department of Administration Services, Materiel Management Administration.

Standard Specifications - Department's current specifications and provisions.

Stop Work Order (SWO) - A written instruction/notice from the Department revoking the Contractor's Construction Permit and subsequent rights to continue Work on the Project due to nonconformance with these Standards.

Stopping Sight Distance - This distance is measured from the driver's eye. 3.5 ft. above the pavement to the top of an object 6 in. high on the pavement anywhere on the roadway. It is the distance required by the driver of a vehicle traveling at the design speed to bring the vehicle to a stop after an object on the road becomes visible.

Storage Length - Storage length is the distance from the end of the bay taper to the intersection nose or stop line.

Street - A public highway as shown on the records of the District, whether designated as a street, alley, avenue, freeway, road, drive, lane, place, boulevard, parkway, circle, or by some other term.

Streetscape - Pedestrian and landscape improvements in the ROW generally occurring between the curb and the ROW line. Streetscape generally includes sidewalks, street trees, pedestrian lighting, fencing, furnishings, and landscaped areas including medians and irrigation.

Structure - Anything constructed or erected with a fixed location below, upon, or above grade, including without limitation: foundations, traffic signals, fences, retaining walls, buildings, inlets, vaults, poles, bridges, and major drainage facilities.

Subcontractor - A person, other than the Contractor supplying labor and materials, or labor only, for the Project, and working for Contractor or District.

Subgrade - The top surface of a roadbed upon which the pavement structure and appurtenances are constructed.

Substantial Completion - Major completion of a Work for the Project, prior to certain inspection(s) or the creation of Punch-lists.

Substructure - All of that part of a bridge below the bearings of simple or continuous spans, skewbacks of arches and tops of footings of rigid frames. Also includes backwalls.

Superintendent - The Contractor's authorized representative in responsible charge of the work.

Supplemental Specifications - Approved additions and revisions to the Standard Specifications.

Surety - A financial instrument such as cash, letter of credit, bond, or escrow agreement as approved by the District-securing the Developer's responsibility to complete construction of Public or Private Improvements within an approved Project. Surety shall also mean a financial instrument securing the Developers obligations throughout the Warranty Period.

Surface Course - The top layer of a pavement structure; sometimes called the "wearing course" or "top".

Traffic Control Plan - A formal plan prepared by the Department or by the Contractor indicating how traffic is to be handled through a construction project. The Traffic Control Plan (TCP) should comply with the current edition of MUTCD.

Trail - Any path used by pedestrians or bicyclists within a public ROW or easement. This would include concrete, gravel, or natural surfaces.

Traversable Barriers - A barrier placed across any portion of a street and is traversable by bicyclists, pedestrians, inline skaters, and emergency vehicles only.

Traversable Path - Consists of a curved curb transition, a curb cut, or a drive-over curb, along with a paved driveway width.

Tree Lawn - Area of ROW between the curb and the sidewalk.

Tree Space - The portion of the sidewalk used or reserved for trees.

Variance - That, which differs from the standards, set forth in these Standards.

Warranty Period - The period of time that the Contractor is responsible for material and workmanship defects to the Public Improvements, until written notification by the District of Final Acceptance of the Public Improvements.

Wheel Path - This is the 3 ft. wide wheel traveled portion located on both sides of the roadway and starting 2 ft. from the center of the roadway.

Width of Curb Opening (W) - The width of curb opening measured at the curb line, excluding the curb transitions or curb returns.

Work - All construction activity, including materials, labor, supervision, and use of tools and equipment necessary to complete the Project in full compliance with these Standards, approved Plans, or Improvement Agreements.

Working Drawings - Drawings furnished by the Contractor showing the layout and details of temporary construction, procedures and methods of construction, and data for construction equipment which are to be employed in the construction of the permanent facility (e.g., form drawings, erection drawings, load test pile procedures, pile hammer data).

Xeriscape - A total design concept in which sound horticultural and landscaping principles are applied to reduce water usage and maintenance in the landscape. It is not meant to reduce water needs to a minimum, nor is it meant to eliminate irrigation.

Appendix F

Project Roles and Responsibilities

Department Director

Department Administration:

- Infrastructure Project Management Administration
- Project Management Division - Oversight of Design and Planning
- Quality Assurance/Quality Control Division
- Design Policy and Project Coordination Division
- Asset Management Division

Policy and Planning Administration:

- Mass Transit Division - Bus stop location
- Transportation Planning Division -
- Transportation Technology and Research Division

Traffic Services Administration:

- Traffic Safety Division
- Traffic Signal System Division - Signal design and installation
- Traffic Operations Division

Public Space Management Administration:

- Public Space Permitting Division - ROW permits
- Neighborhood Infrastructure Division
- Public Space Maintenance Division

Urban Forestry:

- Tree Maintenance Division
- Landscape Maintenance Division

Project Development Shareholders:

- Project Manager
- Consulting Engineer
- WASA Utility Engineer
- Budget Office
- Commission on Fine Arts
- State Historic Preservation Officer
- Federal Highway Administration
- FEMA
- US Army Corps of Engineers
- US Fish and Wildlife
- Department of Public Health - Air Quality Division
- Department of Public Works - Water Quality Control Division
- Architect of the Capitol
- Project Structural Engineer

- District Materials Engineer
- Geotechnical Engineer
- District Surveyor
- District ROW Manager
- Chief Transportation Engineer
- National Park Service
- Railroad Company
- Public Utilities
- Federal Aviation Administration
- Federal Transit Administration
- WMATA
- District Corporation Counsel
- Procurement Office
- District ADA Coordinator
- District EEO/Civil Rights
- Advisory Neighborhood Commissions
- Neighborhood Services Coordinators

Appendix G

Summary of Traffic Impacts

Summary

- Project Name:
- Project Location (include section, township, and range):
- Applicant Name/Address/Phone:
- Traffic Engineer Name/Address/Phone:

2.) Introduction

- Short Term Planning Horizon:
- Long Range Planning Horizon:
- Please attach the following maps:
 - Vicinity map, with site and study area
 - Site plan with transportation network
 - Study area land uses
 - Committed surface transportation network
- Please attach the table of values for the proposed development adjacent to the site.

3.) Existing Traffic Conditions

- Attach the daily, a.m., and p.m. peak hour traffic map(s)
- Attach levels of service table.

4.) Future Traffic Conditions w/o Proposed Development

- Attach the daily, a.m., and p.m. peak hour traffic map(s)
- Attach levels of service table

5.) Proposed Project Traffic

- Attach trip generation table.
- Provide documentation for making adjustments to the trip generation rates (include a brief explanation/justification).
- Attach the trip assignment and traffic volume map(s):

6.) Future Traffic Forecasts with the Proposed Development

- Attach the daily, a.m., and p.m. peak hour traffic map(s)
- Attach levels of service table

7.) Traffic Impacts

- Attach the following maps (and/or table of values):
 - Capacity and volume/capacity ratios
 - Peak hour intersection level of service
 - Traffic signal and access improvements

8.) Special Analysis/Issues

- Present brief information on any special analysis or issues that have influenced the results of this traffic impact study.

9.) Required Mitigation Measures/Recommendations

- Attach “Recommended Improvements Summary Sheet”
- Attach a map showing level of service resulting from recommended improvements.
- Attach scaled map or aerial photograph showing proposed improvements.

Appendix H
Context Sensitive Design Guidelines